campanulate, and three specimens from Utah and Arizona that are C. Stansburiana in all other characters have a campanulate hypanthium that is abruptly contracted at base. One of the Mexican specimens (Dugès in 1899) that has the entire primary leaf lobes of C. mexicana, is intermediate in shape of the hypanthium and the latter is conspicuously glandular, although the glands are sessile or nearly so. The specimen from Rye Creek, Arizona, as was noted in a preceding paragraph, although conforming to the characterization of C. Stansburiana in shape of the leaves and of the hypanthium, lacks the stipitate glands. It is also aberrant in having the leaves obscurely and minutely punctate, not conspicuously and coarsely so, as in all other specimens of C. Stansburiana and in all specimens of C. mexicana examined by the writer.

Bureau of Plant Industry,
United States Department of Agriculture,
Washington, D. C.
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FRANCESCO FRANCESCHI

JOHN M. TUCKER

This paper is a brief account of the life and work of the man who stands out above all others in the history of horticulture in southern California—Dr. Emanuele Orazio Fenzi, known to his associates in this country in later life as Dr. Francesco Franceschi. In gathering data I drew upon a number of sources, and take this opportunity to express my appreciation to the following persons for the assistance they have given me: to Dr. Emily O. Lamb, who lived with the Fenzis at Santa Barbara as a member of the family for fourteen years, to Mr. Peter Riedel and to Mr. H. M. Butterfield, for much of the information contained in the following pages; to Mr. Butterfield, Miss Annetta Carter, and Mr. M. Van Rensselaer, for the loan of horticultural catalogues and journals —sources of much valuable data; to Dr. H. L. Mason, for placing at my disposal a collection of Franceschi's business correspondence (a fund of information of which I have scarcely scratched the surface), and to Dr. Howard S. Reed, for guiding my efforts in preparing this paper. Particularly informative also, were the following two articles: "Una gloria dell'orticoltura italiana. Dott. Emanuele Orazio Fenzi," by Mario Calvino-(L'Agricoltura Coloniale, 22: 122-128. 1928.) and "Dr. Fenzi's Contributions to American Horticulture," by F. W. Popenoe (Journ. Hered. 13: 215-220. 1922.).

Emanuele Orazio Fenzi was born March 12, 1843, in Florence, Italy. His grandfather was a very wealthy banker of that city and a senator, a man of an aggressive dominating personality. The Fenzi family were patrons of the arts and sciences, and followed the latest developments in these fields with great interest.

The renowned pianist, Anton Rubinstein, was a friend of the family, and on his visits to Florence, used to come to their home to practice, because their piano was the finest in the city. Thus, the background of young Fenzi was one of culture and wealth, with its attendant advantages.

In early youth he lost his parents, and his grandfather took it upon himself to see that he was properly educated. The grandfather, seeing his young charge as a future man of affairs, sent him to the University of Pisa to study law. Although he would far rather have studied botany, he complied with his grandfather's wishes and in 1864 received the degree of Doctor of Laws.

After leaving the university, he turned to botanical and horticultural pursuits, despite the fact that his grandfather wanted him to start upon a business career. Endowed with a large estate which made him financially independent, he was able to indulge his tastes as he chose in the years that followed. At his country place near Florence, he formed an arboretum of rare trees, and on the estate of a relative near Rome, he assembled a large collection of plants from countries all over the world. He was the first to introduce bamboos to Italy; Genista monosperma was another of his introductions. He did considerable work in the improvement of grape and olive culture in Italy, and frequently contributed horticultural and botanical articles, not only to Italian periodicals, but to the English journal, "The Gardener's Chronicle," as well. Fenzi travelled a great deal, and at one time or another visited all the principal botanical gardens of Europe. In May, 1874, he served as secretary of the International Agricultural Exposition at Florence and edited its catalogue. Shortly thereafter, he became the first secretary of the Royal Tuscan Society of Horticulture, an organization of which he was later president.

His activities in later years were not confined to the fields of horticulture and agriculture, however. When his grandfather died, he took charge of the affairs of the bank and, in addition, managed an estate. He was instrumental in establishing an electric tram line to Fiesole, the first in Italy, and the steam lines at San Casciano and Greve. But he had so little enthusiasm for business, that he soon turned over the management of the bank to a cousin. Then, during the economic crisis of 1889–90 Fenzi was forced to close the bank. In order to settle accounts with its creditors he found it necessary to liquidate virtually everything he owned, so that, finally, he and his family were left with only

a very small fraction of their once large fortune.

Because of his losses, he was no longer hampered by a multitude of business matters, and saw a chance to put his interest in plants to work. His ambition was to gather together in one area plants from countries all around the globe. He decided to go to southern California because the climate was well suited to his purpose. So, in 1893, he came to Los Angeles, his wife and family remaining in Italy. He was in California six years before they joined him. From a strong feeling of family pride he dropped the surname, Fenzi, lest the stigma of his bank failure follow him to America, and adopted in its place a family name, Franceschi. During the twenty years he spent in California, he was known to all but his intimates, as Dr. Francesco Franceschi. In Los Angeles, he met J. C. Harvey, the elder Mr. Howard, E. D. Sturtevant, and other horticulturists and nurserymen. He remained there only a year, however, before he moved to Santa Barbara where he entered into partnership with C. F. Eaton in raising nursery stock. After a short time, the partnership was dissolved and Franceschi started a nursery business of his own, calling his organization the Southern California Acclimatizing Association.

To obtain new species he wrote to botanical gardens, collectors, and plantsmen in all parts of the world, and soon developed an extensive correspondence. Here the unusual linguistic ability Franceschi possessed stood him in good stead, for he read, wrote and spoke not only his native Italian, but also English, German,

French, Spanish, and modern and ancient Hebrew.

Yet his interest was far from being confined to exotics. He was ever on the lookout for any elements of the native flora that might possess striking ornamental qualities. Indeed, in November, 1894, having been in Santa Barbara less than a year, he made a week's trip to Santa Cruz Island, the largest of the Santa Barbara Channel Islands. While there he obtained seeds of several different species which were at that time unknown in the horticultural trade. The most noteworthy of these was Lyonothamnus floribundus var. asplenifolius, the Santa Cruz Island ironwood. Unable to find any seedlings of this tree, he laboriously dug up a living stump and gathered some seed. With considerable difficulty, he managed to carry his prize back to camp, and on his return to the mainland planted it in his lathhouse in Montecito, a few miles from Santa Barbara. In five or six months it had started to sprout. The next year, when he moved his nursery to Santa Barbara, he transplanted it to his new location where, in a few years, it developed into a fine tree. From the seed, Franceschi obtained several trees, one of which is the fine specimen to be seen today in the grounds of the old botanical garden north of the library, on the campus of the University of California at Berkelev.

He had been in Santa Barbara only a year, when, in 1895, he published a small book entitled, "Santa Barbara Exotic Flora." This book contains a good deal of meteorological and climatic data, and observations on the soil and native flora of the region. It includes notes on the history of plant introduction in the region, and mentions the two oldest introduced trees of the town, Casimiroa edulis, the White Sapote, and Prunus Capuli, the Capulin Cherry, both natives of Mexico. This volume gives an apparently comprehensive review of the exotic plants then cultivated in

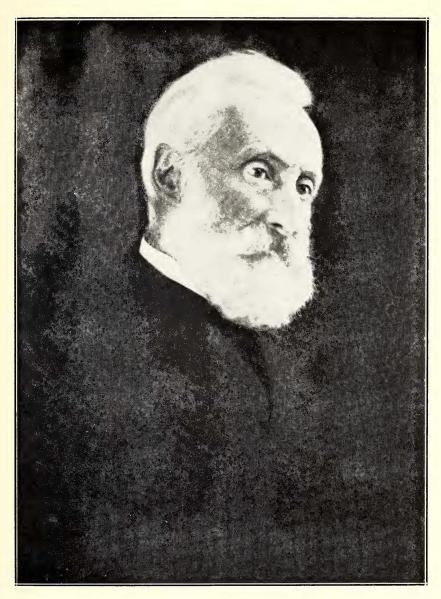
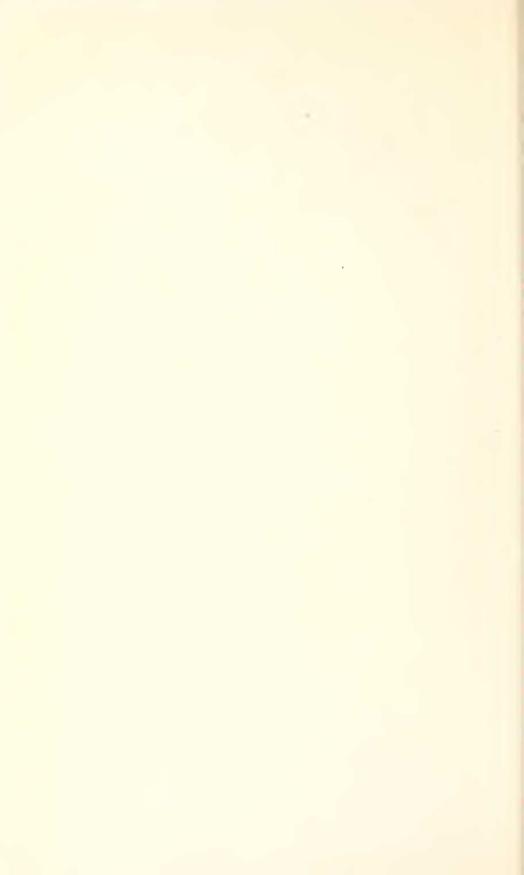


PLATE 2. FRANCESCO FRANCESCHI.



Santa Barbara and evidences the keenness of Franceschi's observations, and the breadth of his botanical knowledge.

David Fairchild, in his recent book, "The World Was My Garden," tells of meeting Franceschi at Santa Barbara in 1898. He speaks of Franceschi's enthusiasm in the following words: "Santa Barbara in 1898 was but a simple, small town. Residents of the beautiful hillside villas today would not credit their eyes could they visualize the bare, sparsely settled roads where I drove with Dr. Franceschi. . . . Santa Barbara was so undeveloped that I considered him visionary and over-optimistic. However, he foresaw the future more clearly than I, and lived to see Santa Barbara become a great winter resort containing hundreds of beautiful villas like those on the Riviera." Fairchild, at that time with the United States Bureau of Plant Industry, was impressed with the work Franceschi was doing, and had numerous new plant introductions of the Bureau sent to him from time to time for trial in Santa Barbara.

In 1904 Franceschi acquired forty acres of land on Mission Ridge, at that time a dry, barren hillside entirely outside the bounds of the city. Here he built the house in which he lived until he left Santa Barbara, a place he named "Montarioso." established another nursery here, and, in order to have an ample water supply, built a small reservoir near the top of the hill. perusal of his business correspondence leaves one with the impression that he was not blessed with much financial success during the following years. In June, 1904, his propagating house burned and he appears to have been considerably in debt in the months that followed. In 1907 he went into partnership with Mr. Peter Riedel, and incorporated the Southern California Acclimatizing Association, hoping thereby to be relieved of some of the burden of routine business matters. This arrangement did not work out well, however, and after little more than a year, in 1909, they decided to dissolve their partnership. Following this incident, Franceschi continued his business independently on Mission Ridge, calling it the Montarioso Nursery. By offering his services in landscaping and maintenance of the grounds of a number of estates in Montecito, he was able to bolster his income. However, the continued cost of introducing new plants, a work Franceschi carried on despite his reverses, and the limited demand for his exotic rarities, made financial disaster inevitable.

It is not surprising, therefore, that upon receiving an offer from the Italian government in 1912, to take a post in the African colony of Libya, he decided to accept. He was to introduce new plants having agricultural and horticultural value, and to do what he could to develop agriculture in the colony, the government furnishing the land and facilities for his introduction grounds. Accordingly, on July 21, 1913, he bade farewell to Santa Barbara, and with his wife and daughters, started out for his native Italy.

His two sons remained in California, the older carrying on the business as manager of the Montarioso Nursery. For the next year and a half, Franceschi lived in seclusion on the Italian Riviera, preparing the manuscript of a book, "Frutti Tropicali e Semi-Tropicali," which was published at Florence in 1915. A short time later, he made a reconnaisance trip to Libya, accompanied by his nephew, Guido Corsini, and in February, 1915, laid out his establishment in the city of Tripoli. Thus, at an age when most men would have been long since retired, Franceschi, at 72, was setting out on a fresh venture. He held this post for several years, and then retired to carry on the same work at his own expense.

In 1922, he was awarded the third Meyer Memorial Medal by the council of the American Genetic Association. This is a medal presented periodically to persons who have accomplished outstanding work in introducing plants to American horticulture. The medal was sent to Tripoli, in 1923, by the governor, Count

Volpi.

Franceschi continued his literary activity to the end of his life, contributing articles on agriculture in Tripoli to the Italian journal, "L'Agricoltura Coloniale." He died in Tripoli on November 5, 1924, at the age of 81. Franceschi's oldest daughter has carried on his work in Tripoli, and today maintains a successful nursery there. She, apparently, had, in addition to a deep interest in things botanical, considerable business acumen. Probably the most important accomplishment of the two in Tripoli, has been the importation and propagation of large numbers of eucalyptus trees of various species.

HORTICULTURAL ACHIEVEMENTS

During the years that he lived in Santa Barbara, Franceschi wrote numerous articles for the local newspaper, and was a regular contributor to such journals as "Pacific Garden" and "Rural Californian." He did much toward developing an appreciation of the beauty as well as the economic value of the large number of ornamental plants and tropical and subtropical fruits that could be grown in the region. His reputation spread throughout horticultural circles in this country, and every botanist or plantsman who visited Santa Barbara, was certain to pay him a call to see his collection of rare plants. The esteem in which his judgment and opinions were held is shown by the frequency with which he is quoted in the literature of tropical and subtropical plants.

Among the multitude of new plants that he brought to the gardens of Santa Barbara, the following are some best suited to the climate there. A number of these have attained the popularity they deserve, although some, none the less fine ornamentals,

are still rather rare.

Acacia obliqua Acacia podalyriaefolia Aglaia odorata Aleurites Fordii Alöe Salm-Dyckiana Anthyllis Barba-Jovis Asparagus decumbens Asparagus scandens var. deflexus Bauhinia grandiflora Bauhinia tomentosa Bauhinia variegata Benthamia fragifera Bocconia frutescens Buddleia madagascariensis Carica quercifolia Convolvulus florida Dioclea glycinoides Dombeya natalensis Dombeva punctata Erythrina tomentosa Eugenia edulis Feijoa Sellowiana Ficus altissima Ficus infectoria Ficus retusa

Genista monosperma

Harpephyllum caffrum Hibiscus heterophyllus Jasminum simplicifolium Lippia repens Lithraea Gilliesii Lyonothamnus floribundus var. asplenifolius Metrosideros tomentosum Myoporum acuminatum Myoporum tomentosum Pithecoctenium clematidium Pithecoctenium muricatum Pittosporum heterophyllum Pittosporum rhombifolium Pittosporum viridiflorum Psidium lucidum Rhynchosia minima Schinus terebinthifolius Schotia latifolia Solanum Guatemalense Sterculia discolor Stigmaphyllon littorale Taxodium mucronatum Tecoma garrocha Tipuana speciosa Tricuspidaria dependens Vitis capensis

Of all the new plants Franceschi introduced, none has become better known than Lippia repens. Its popularity is probably due in large part to the publicity given it by Franceschi, but the importance he attached to this particular introduction appears to have been based on an erroneous idea that he held. In 1904, in an article that he wrote for the Los Angeles Times, Franceschi states that he first introduced this species from Italy in 1898. He says: "From the Director of the Botanic Garden in Rome I obtained by mail a small tin box of Lippia plants, less than 12 ounces weight. Now, after six years, there are hundreds and hundreds of acres planted with Lippia between California, Arizona, Mexico and Australia, and it all came out of that small tin box..."

In contrast to this remarkable statement, H. N. Moldenke, an authority on the Verbenaceae, in a personal communication of May 26, 1941, makes the following comment: "You can be very sure that the plants (of "Lippia repens") of Texas, New Mexico, and Arizona, and central, eastern, and southern United States have nothing to do with the plants introduced into California by Franceschi, but it is my belief that most of those of southern California (at least all that I have seen so far) are descendants of the ones he introduced."

The efforts Franceschi made to secure new plants, to make certain of their identity, and to obtain accurate information regarding their culture and optimum growth conditions, were often great, and show a truly scientific spirit. Scattered throughout his correspondence are letters to and from such well-known botanists as Joseph Burtt-Davy, William Trelease, J. H. Maiden of Australia, Charles Sprague Sargent, Harvey Monroe Hall, Miss Alice Eastwood, and T. S. Brandegee, requesting and receiving identifications of specimens which he had submitted. As another illustration, his letter of October 30, 1908, to Mr. C. Wercklé at San Jose de Costa Rica, might be cited. Wercklé was the discoverer of Hidalgoa Wercklei, the "Climbing Dahlia," which Franceschi had introduced at Santa Barbara. Having had difficulty in bringing it to flower, we find him, in this letter, requesting information regarding its mode of growth and climatic requirements from the man who, logically, would know most about such matters—its discoverer. This thoroughness was typical of Franceschi.

A good example of his persistence and determination in effecting the introduction of a desirable species, is the case of Taxodium mucronatum, the "Montezuma Cypress." Franceschi had often seen the tree in the Botanic Garden at Naples, planted by Tenore, the botanist who described the species, and its beauty had made a lasting impression upon him. In 1898 he decided to obtain seeds and try it out in Santa Barbara, and accordingly, sent to Naples for seed, which failed to germinate. Year after year, seeds from there and elsewhere persistently refused to germinate, but at last, in 1908, after ten years of failure, his patience was rewarded. Through his friend, Professor C. Conzatti of Oaxaca, he obtained, from the Federal Park at Chapultepec, Mexico, seeds which, much to his gratification, germinated successfully. Today, many fine trees grown from these seeds may be seen in the parks and gardens of Santa Barbara.

The culture of tropical and subtropical table fruits was a subject of special interest to Franceschi. He carried on much correspondence on aspects of this subject with men of the United States Bureau of Plant Industry, and horticulturists and fruit growers (the Popenoes of Altadena, California, particularly), throughout the warmer parts of this country and of many foreign countries. He introduced several new species of Anona, and from a superior tree of A. Cherimola growing in Altadena, he raised plants in 1910 which he subsequently sent out under the name of A. Cherimola mammillaris. His best known fruit introduction was the "Pineapple Guava," Feijoa Sellowiana. This he introduced in 1901, obtaining seeds from France, where it had been introduced previously from its native South America. Although it was given much publicity at the time, Feijoa has not gained the popularity that Franceschi had hoped for it, and certainly has not attained any economic importance as a fruit in southern California.

Of much greater consequence in this field, however, were the frequent articles he wrote for newspapers and horticultural journals. His book, "Frutti Tropicali e Semi-tropicali," probably embodies the findings of his long years of experience in this field. It is a work of some 260 pages, contains numerous illustrations, and descriptions of 727 species. The majority of these descriptions are rather brief, although for those which are of more economic importance he gives much more detailed information. An English translation of this book from the Italian would be a real contribution to the literature of subtropical horticulture in this country.

The total number of different kinds of plants that Franceschi grew during his stay in Santa Barbara has not yet been fully worked out. Among the miscellaneous papers in the collection of his business correspondence, stored at the Herbarium of the University of California, is a typewritten list of plant names, contained on 114 sheets, with the following inscription pencilled on the first sheet: "List of Seeds and Plants Tried Out in Santa Barbara, California, by Dr. F. Franceschi." The number of genera is approximately 796, of species, varieties, and horticultural forms, approximately 2,129. Exactly what significance may be attached to this list is a questionable matter, however. There is nothing to indicate who compiled it or when this was done. appears to have been prepared without the exercise of very much care, and in no case is information given as to the results of the trial introductions.

The total number of his new plant introductions is a debatable matter. In the catalogues of the Southern California Acclimatizing Association which he published at irregular intervals, and later, in the price lists of the Montarioso Nursery, he points out the plants that he claims were first offered by him in the horticultural trade in this country. The total number of these—species, varieties, and horticultural forms—mentioned in his catalogues and price lists from 1896 to 1914 (see bibliography) reaches nearly 900.

These claims, however, cannot all be accepted at their face value. There are occasional instances where species that he claimed to have introduced ("plants first offered by us in the United States") can be shown actually to have been offered by nurserymen prior to his coming to California. A single example is *Phoenix canariensis*, the "Canary Island Date Palm." Franceschi, in his "Condensed Catalogue and Price List" for 1908, indicates that this species was one of his introductions, but, according to Mr. H. M. Butterfield this palm was offered by John Rock at San Jose as early as 1877. Moreover, the lack of consistency with regard to some of his claims, in catalogues of different years, casts a shadow of doubt on their validity. For instance, in his catalogue for 1908, he claims to have been the first in this country to